

## ENR 1.7 ALTIMETER SETTING PROCEDURES

### 1. Introduction

The Altimeter Setting Procedures in use generally conform to those contained in ICAO DOC 8168, Vol I, Part 6 and are given in full below.

Transition altitudes are given on the instrument approach, STAR and SID charts.

QNH reports and temperature information for use in determining adequate terrain clearance are provided in MET broadcasts and are available on request from the air traffic services units. QNH values are given in hectopascal.

### 2. Basic altimeter setting procedures

#### 2.1 General

2.1.1 A transition altitude is specified for each aerodrome. No transition altitude is less than 3000 feet above an aerodrome.

2.1.2 For those aerodromes which ATS units are not available, transition levels are assigned and given on the instrument approach, STAR and SID charts.

QNH	T.L
1050.4 – 1031.8	TA + 500
1031.7 – 1013.2	TA + 1000
1013.1 – 995.2	TA + 1500
995.1 – 977.1	TA + 2000
977.0 – 959.5	TA + 2500

2.1.3 Vertical positioning of aircraft when at or below the transition altitude is expressed in terms of altitude whereas such positioning at or above the transition level is expressed in terms of flight levels. While passing through the transition layer, vertical positioning is expressed in terms of altitude when descending, and in terms of flight levels when ascending.

2.1.4 Flight level zero is located at the atmospheric pressure level of 1013.2 HPA (29.92 inches). Consecutive flight levels are separated by a pressure interval corresponding to 500 feet in the Standard Atmosphere.

*Note.- Examples of the relationship between flight levels and altimeter indications are given in the following table:*

<i>Flight level number</i>	<i>Altimeter indication Feet</i>
30	3 000
50	5 000
100	10 000
150	15 000
200	20 000

#### 2.2 Take-off and climb

2.2.1 A QNH altimeter setting is made available to aircraft in taxi clearance prior to take-off.

2.2.2 Vertical positioning of aircraft during climb is expressed in terms of altitudes until reaching the transition altitude above which vertical positioning is expressed in terms of flight levels.

#### 2.3 Vertical separation - En route

2.3.1 Vertical separation in en-route phase shall be expressed in terms of flight levels at all times during an IFR flight.

2.3.2 IFR flights, and VFR flights at and above 3000 feet, when in level cruising flight, shall be flown at such flight levels, corresponding to the magnetic tracks shown in the following table, so as to provide the required terrain clearance:

	000° - 179°		180° - 359°	
	IFR	VFR	IFR	VFR
Flight Level Number	30	35	40	45
	50	55	60	65
	70	75	80	85
	90	95	100	105
	....	etc.	....	etc.
	270		280	
	290		300	
	310		320	
	etc.		etc.	

#### 2.4 Approach and landing

2.4.1 A QNH altimeter setting is made available in approach clearance and in clearance to enter the traffic circuit.

2.4.2 QFE altimeter settings are available on request.

2.4.3 Vertical positioning of aircraft during approach is controlled by reference to flight levels until reaching the transition level below which vertical positioning is controlled by reference to altitudes.

#### 2.5 Missed approach

2.5.1 The relevant portions of 2.1.2, 2.2 and 2.4 shall be applied in case of a missed approach.

### 3. Description of altimeter setting region

The reported QNH is valid within 25 NM.

### 4. Procedures applicable to operators (including pilots)

#### 4.1 Flight planning

The levels at which a flight is to be conducted shall be specified in a flight plan:

a) in terms of flight levels if the flight is to be conducted at or above the transition level, and

b) in terms of altitudes if the flight is to be conducted in the vicinity of an aerodrome and at or below the transition altitude.

*Note 1.- Short flights in the vicinity of an aerodrome may often be conducted only at altitudes below the transition altitude.*

*Note 2.- Flight levels are specified in a plan by number, and not in terms of feet as is the case with altitudes.*

**5. Tables of cruising levels**

The cruising levels to be observed when so required are as follows:

In Tehran FIR since 27 NOV 2003, a vertical separation minimum (VSM) of 300m (1000ft) is applied between FL290 and FL410 inclusive:

TRACK							
From 000 degrees to 179 degrees				From 180 degrees to 359 degrees			
IFR Flights		VFR Flights		IFR Flights		VFR Flights	
FL	Altitude Feet	FL	Altitude Feet	FL	Altitude Feet	FL	Altitude Feet
30	3 000	35	3 500	40	4 000	45	4 500
50	5 000	55	5 500	60	6 000	65	6 500
70	7 000	75	7 500	80	8 000	85	8 500
90	9 000	95	9 500	100	10 000	105	10 500
110	11 000	115	11 500	120	12 000	125	12 500
130	13 000	135	13 500	140	14 000	145	14 500
150	15 000	155	15 500	160	16 000	165	16 500
170	17 000	175	17 500	180	18 000	185	18 500
190	19 000	195	19 500	200	20 000	205	20 500
210	21 000	215	21 500	220	22 000	225	22 500
230	23 000	235	23 500	240	24 000	245	24 500
250	25 000	255	25 500	260	26 000	265	26 500
270	27 000	275	27 500	280	28 000	285	28 500
290	29 000			300	30 000		
310	31 000			320	32 000		
330	33 000			340	34 000		
350	35 000			360	36 000		
370	37 000			380	38 000		
390	39 000			400	40 000		
410	41 000			430	43 000		
450	45 000			470	47 000		
490	49 000			510	51 000		
etc.	etc.			etc.	etc.		